

The SIRC column

No longer dying for a living?

Professor Mick Bloor of the Seafarers' International Research Centre looks at seafarers' health in the global shipping industry



In the last quarter of a century the shipping industry has been transformed out of all recognition, both technologically (containerisation, automated engine-rooms, satellite communications) and economically (the development of a single global labour market for seafarers, the growth of crewing companies and ship management companies). Traditionally, seafaring was a dangerous occupation, with much more than its fair share of deaths, injuries and ill health. It is clear that some of the recent changes in the shipping industry have served to improve seafarers' health and safety: for example, satellite emergency communications have obviously assisted in saving lives. But is this the true overall picture? Has the globalisation of the industry actually improved health and safety? That is much less clear. This article tries to summarise the research evidence that is currently available on the effect of globalisation on health. In next month's issue of *The Sea* we will look at the effect on seafarers' safety.

The biggest problem we have in coming to a judgement is the fragmentary nature of the evidence. Individual nations collect data on the deaths of their nationals and some publish summaries of deaths for different occupations like seafarers. The UK, for example, publishes such summaries every ten years, but some deaths of UK seafarers occurring abroad and on ships which are not British-flagged are thought to go unreported to the British authorities. And a similar degree of under-reporting is likely to occur for the deaths of seafarers of other nationalities.

Likewise, information on illness and disability is very limited. Seafarers will often self-medicate rather than use the medicine chest and, in any case, the logged records of medicine chest use are not centrally collected and published. Moreover, seafaring is predominantly a young person's occupation and illnesses stemming from a person's time at sea may only surface many years after they have taken a job ashore. For example, ex-engineers and ex-enginehands are currently

dying of mesothelioma as a result of exposure to asbestos lagging in the ships' engine-rooms of thirty years ago. Health surveys of seafarers fail to pick up many current health problems, because unhealthy and disabled seafarers will leave the workforce, either voluntarily, or as a result of failing their periodic medical examinations.

The periodic medical examinations screen out substantial numbers of unfit seafarers: in 1998 the 25,438 seafarers' medical examinations conducted in the UK resulted in the failing of 672 seafarers, while a further 2,172 were only issued with restricted certificates. So health surveys will only pick up a fraction of current illness and disability, because many of the sickest and most disabled will have already left the shipping industry.

Bearing in mind that the medical evidence we have is only fragmentary, the picture of seafarers' health is rather alarming. The shipowners' mutual insurance associations, called Protection and Indemnity Clubs, report rising numbers of insurance claims for repatriation and illness in the 1990s, *despite* the fact that seafarers' actual numbers are falling, as ships operate with smaller and smaller crews.

Special health surveys detect substantial ill health among seafarers who would probably have been passed fit at the ordinary medical examinations. A physical screening and testing of 997 Filipino crew, for example, found 9.6 per cent to be unfit, most commonly because of abnormal liver function, hepatitis B, or high blood pressure. Hepatitis, which often leads to serious liver disease in later life, is not confined to crews from the developing world: Scandinavian seafarers, for example, have also been shown to have high rates of hepatitis.

Sexually transmitted diseases are much more common among seafarers than among shore-based men. Seafarers from the developed world who undergo extended physical tests, such as electrocardiograms, often show many more cases of heart disease than would have been

evident at the ordinary physical examinations. But heart disease is also a common cause of death among developing world crews, for example among Indian ratings.

Past exposure to asbestos has already been mentioned, but seafarers may still be suffering from exposure to other toxic and cancer-producing materials. Organic solvents, for example, can affect the central nervous system as well as cause cancers. And seafarers are also exposed to physical hazards to their health, particularly noise and vibration. A study in Polish merchant ships found that noise in engine-rooms and living quarters often exceeded permitted safety levels and resulted in at least temporary damage to crews' hearing. Seafarers' lifestyles may also be unhealthy: a study of 1,806 Australian seafarers showed that, compared to fellow Australians, the seafarers smoked and drank more, exercised less and consumed more sugar and fat.

Our knowledge of seafarers' mental health is very limited but what we do know gives cause for concern. In the same Australian study, 60 per cent of the seafarers reported moderate to high stress levels, with masters, mates and pilots reporting the most problems. However, the greatest sources of stress were not work problems, but home problems. Stresses can also affect seafarers' families: in a separate Australian study of the wives and families of Great Barrier Reef pilots, pilots' wives were more likely than normal to be depressed or suffering high anxiety levels.

As well as stress, mental illness is associated with fatigue from long hours of work, and with broken sleep patterns. Seafarers experience both of these. An ITF survey found that 14 per cent of seafarers responding were working for 12 hours a day or more. And study of sleep disturbance (measured by actimeters worn on the wrist) among crew of a European passenger ferry found that split shift patterns created the worst quality of sleep for crews. Data from countries such as Britain and Denmark show high rates of suicide among seafarers.

The shipping industry labour force is a healthy one largely because those who are unhealthy leave the industry. Some aspects of the modern global industry – such as long hours and split shifts – could be argued to promote ill health, particularly poor mental health.